



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,875	03/05/2002	Bruce E. Lavigne	100202223-1	6931

7590 02/07/2006

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

WONG, WARNER

ART UNIT PAPER NUMBER

2668

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/091,875	Applicant(s) LAVIGNE, BRUCE E.	
	Examiner Warner Wong	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8 and 17-20, drawn to packet wraparound and packet time expiration operations, classified in class 370, subclass 389.
  - II. Claims 9-16, drawn to general arithmetic processing for performing the arithmetic operations, classified in class 708, subclass 706.

The inventions are distinct, each from the other because of the following reasons:

Invention I has a utility for packet transmission within a networking environment.

Invention II has a separate utility used by computer algorithms or any other general devices with calculating method/logic subject to wraparound such as a calculator.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purpose as indicated is proper.

2. During a telephone conversation with James Hao on December 27, 2005, a provisional election was made without traverse to prosecute the invention of I, claims 1-8 and 17-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2668

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The body of the claim does not support the preamble of the claim (determining a timeout condition). It is unclear how the timeout condition is determined for the body of the claim.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1 and 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Each of the two independent claims does not yield a useful, tangible and concrete result. It merely manipulates data and does not have practical applications in the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2668

5. Claims 1-6 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohgane (6,411,622) in view of Chida (6,760,369) and Abbey (6,438,187).

**Regarding claims 1 and 17**, Ohgane describes a method and apparatus (official notice taken that it is implement-able by a computer readable medium executing instructions) which determines timeout having a counter subject to wrap-around (fig. 4, and col. 2, lines 6-19, where the timer section timer increments only and is inherently subjected to wrap-around), comprising:

adding a first time value and an offset to produce a sum (col. 3, lines 1-3, where the reception start time = first time value & allowable time = offset);

In view of claim 1, Ohgane lacks what Chida describes:

subtracting a second time value from said sum to produce a difference (col. 10, lines 53-57, where transfer time = second time value & inter-start time = sum) for the purpose of reducing time-out errors during transmission which may to transfer termination.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to subtract 1 time value from another (a sum) in producing a difference value as in Chida for the method/system of Ohgane. The motivation is that reducing time-out errors during transmission which may to transfer termination (Chida, col. 1, lines 56-63).

In view of claim 1, Ohgane and Chida combined lack what Abbey describes:

masking said difference to produce a masked difference and performing a single compare operation between said masked difference and an expiration value (col. 5,

Art Unit: 2668

lines 59-64 & col. 6, lines 1-7, where the sample/difference are masked before comparing with a predetermined bit pattern/expiration value and that the output is checked for matching plus exceeding threshold value) for the purpose of providing a greater synchronization reliability in communication applications/process.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to mask a difference value and perform a comparison with an expiration value as in Abbey for the combined method/system of Ohgane and Chida. The motivation is that it provides a greater synchronization reliability in communication applications/process (Abbey, col. 2, lines 19-21).

**Regarding claim 2**, Ohgane further describes that the reception start time/first time value is that of the ATM/data packet (col. 2, lines 6-8).

**Regarding claim 3**, Ohgane further describes that the packets transmitted when a timeout does not exists (col. 3, lines 1-11, where if timeout is not detected in the timeout detecting apparatus of the ATM communications controller, fig. 3, the controller will allow the packets to be transmitted between the ATM terminals and ATM servers via the ATM switches, fig. 1 & col. 2, lines 21-25).

**Regarding claim 4**, the combined method of Ohgane, Chida and Abbey further describe that the masking is applied for enabling a comparison between the masked value and a bit pattern value (Abbey col. 5, lines 58-64). The combined method of Ohgane, Chida and Abbey does not explicitly describe that the masking requires truncating two bits (for equal length comparison).

However, it would have been obvious to one with ordinary skill in the art at the time of invention to mask/truncate the appropriate number of bits for the purpose of comparing values of equally dimensions/lengths in a typical manner, especially when performed by computer processor & registers.

**Regarding claim 5**, Abbey further describes that the compare and masking operation is done by a (col. 2, lines 41-42, where status phase processor = microprocessor and its processing logic = ALU).

**Regarding claim 6**, Chida further describes that the first and second time values are from a single counters/clocking source (fig. 4 & col. 10, lines 17-20 & 53-57, where transfer time  $t_2$  [= second time] and inter-start time  $t_4$  [= first & calculated sum time] are based from one timing clock source).

**Regarding claim 18**, Ohgane further describes the reading of a timestamp from a packet header (col. 2, lines 45-57, where the E bit and a new VC [new packet] is used for the purpose of a timestamp indicating an earliest VC or last cell of a packet)

6. **Claims 7, 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohgane in view of Chida and Abbey as applied to claim and 1 above, and further in view of Larson (4,569,042).

In view of claims 7, 19 and 20, Ohgane, Chida and Abbey combined lacks what Larson describes: first and second time values are (loaded) from separate counters/clocks (col. 2, lines 6-18, where timestamp value of transmitted packet is originated from source clock/counter and is compared to timestamp value generated

Art Unit: 2668

locally by another clock/counter) for the purpose of knowing the timing delay for controlling the transmission and reception of communication signals.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to incorporate separate counters/clocks in generating first and second time values as per Larson for the combined method/system of Ohgane, Chida and Abbey. The motivation is that knowing it provides a timing delay for controlling the transmission and reception of communication signals (col. 1, lines 16-20).

7. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohgane in view of Chida and Abbey as applied to claim 1 above, and further in view of Abbey.

In view of claim 8, Ohgane, Chida and Abbey combined lacks what Abbey describes of adding 1 to said sum (col. 4, lines 39-47) for the purpose of allowing packet switching at speed consistent with the data rates on optical fibers.

It would have been obvious to one with ordinary skill in the art at the time of invention by applicant to add 1 to the computed sum as in Abbey for the combined method of Ohgane, Chida and Abbey. The motivation is that it allows packet switching at speed consistent with the data rates on optical fibers (col. 2, lines 8-11).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Dittmann (2003/0202482) and Lee (2002/0172202).



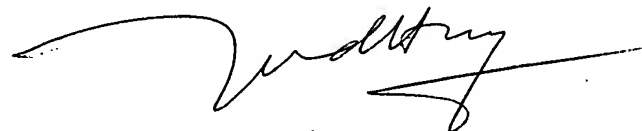
Art Unit: 2668

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong  
Examiner  
Art Unit 2668



HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2668